

Product No: AF09Z301020

**ABB CONTACTOR 25A AC1 9A AC3 3P 3NO 12-20VDC COIL 9A
AC3 DIRECT PLC CONNECT AF09Z301020**



General Information

Brand	ABB
Product Type	AF Contactors

Technical Attributes

Cable Sections - Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Rigid Solid 1/2x 1 ... 2.5 mm ² Rigid Stranded 1/2x 1 ... 2.5 mm ²
Cable Sections - Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Rigid Solid 1/2x 1 ... 2.5 mm ² Rigid Stranded 1/2x 1 ... 2.5 mm ²
Cable Sections - Main Circuit	Flexible with Ferrule 1/2x 0.75 ... 6 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 4 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm ² Rigid Solid 1/2x 1 ... 4 mm ² Rigid Stranded 1/2x 1 ... 6 mm ²
Clamp Type	Screw Terminals
Conventional Free-Air Thermal Current - I _{th} (A)	according to IEC 60947-4-1, Open Contactors q = 40 °C 35 A according to IEC 60947-5-1, q = 40 °C 16 A
DIN Rail Mounting	TH35-15 (35 x 15 mm Mounting Bar) according to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Bar) according to IEC 60715
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 440 V 250 A

cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V
106 A

Maximum Electrical Switching Frequency	AC-1 600 cycles per hour AC-15 1200 cycles per hour AC-2 / AC-4 300 cycles per hour AC-3 1200 cycles per hour DC-13 900 cycles per hour
Maximum Mechanical Switching Frequency	3600 cycles per hour
No. of Auxiliary Contacts	1 NO
No. of Main Contacts	3 NO
No. of Poles	3
Operate Time	Between Coil De-energization and NC Contact Closing 13 ... 98 ms Between Coil De-energization and NO Contact Opening 11 ... 95 ms Between Coil Energization and NC Contact Opening 38 ... 90 ms Between Coil Energization and NO Contact Closing 40 ... 95 ms
Rated Control Voltage	DC Operation 12 ... 20 V
Rated Frequency (Hz)	50 / 60
Rated Impulse Withstand Voltage (kV)	6
Rated Insulation Voltage	acc. to IEC 60947-4-1 690 V acc. to IEC 60947-5-1 690 V according to UL/CSA 600 V
Rated Operational Current AC-1 (A)	(690V) 40°C 25A (690V) 60°C 25A (690V) 70°C 22A
Rated Operational Current AC-3 (A)	(415V) 60°C 9A (440V) 60°C 9A (500V) 60°C 9.5A (690V) 60°C 7A (380 / 400 V) 60 °C 9 A (220 / 230 / 240 V) 60 °C 9 A
Rated Operational Power AC-3 (kW)	(400V) 4kW (415V) 4kW (440V) 4kW (500V) 5.5kW (690V) 5.5kW (380 / 400 V) 4 kW (220 / 230 / 240 V) 2.2 kW
Rated Operational Voltage AC (V)	Auxiliary Circuit 690 V Main Circuit 690 V
Rated Short-time Withstand Current Low Voltage - I_{cw} (A)	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 150 A

at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 35 A

at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 60 A

at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 300 A

at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 80 A, for 0.1 s 140 A, for 1 s 100 A

Wire Stripping Length (mm)

10

Dimensions

Dimensions (mm)

86 * 45 * 77 [H*W*D]

Protection & Standards

Degree of Protection

according to IEC 60529, IEC 60947-1, EN 60529
IP20 Auxiliary Terminals

according to IEC 60529, IEC 60947-1, EN 60529
IP20 coils

according to IEC 60529, IEC 60947-1, EN 60529
IP20 Main Terminals

Standards

IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60947-4-1,
CSA C22.2 No. 60947-4-1